AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1-6. (Cancelled)

7. (Currently Amended) A method for manufacturing an organic molecular device comprising the steps of:

a) providing a substrate of a resistive insulating material having an insulating layer formed on an upper surface and forming a lower electrode on the insulating layer;

b) forming a predetermined size of a sacrificial layer pattern on an entire upper surface of the substrate including the lower electrode and the insulating layer;

c) using a photo etching technique to remove a portion of the sacrificial layer excluding a predetermined area covering the lower electrode so that the sacrificial layer surrounds the lower electrode;

d) covering the entire remaining surface from step c including the sacrificial layer surrounding the lower electrode with a polymer and forming a polymer pattern with a line width of 50nm by an electron beam etching technique to expose the sacrificial layer and the substrate on which the lower electrode is formed;

e) forming an upper electrode by depositing metal on an entire upper surface from step d and removing metal on the polymer pattern by a lift-off process so that an upper electrode is formed on the sacrificial layer surrounding the lower electrode and is on an exposed portion of the insulator;

f) removing the sacrificial layer so that a nanogap is formed between the upper electrode and the lower electrode; and

g) adsorbing conductive organic molecules between the upper electrode and the lower

electrode,

wherein the sacrificial layer pattern is formed of an organic material, an oxide film, a metal film, or a combination thereof having different etching selection ratios with respect to the insulating layer, the sacrificial layer pattern is formed in a nanometer thickness and the nano gap is formed ~~so that~~with asymmetric vertical and horizontal distances ~~thereof~~between the upper and lower electrodes ~~are asymmetric so that~~and the horizontal distance is larger than the vertical distance.

8. (Canceled)

9. (Currently Amended) A method for manufacturing an organic molecular device comprising the steps of:

a) providing a substrate of a resistive insulating material having an insulating layer formed on an upper surface and forming a lower electrode on the insulating layer;

b) forming a predetermined size of a sacrificial layer pattern on an entire upper surface of the substrate including the lower electrode and the insulating layer;

c) using a photo etching technique to remove a portion of the sacrificial layer excluding a predetermined area covering the lower electrode so that the sacrificial layer surrounds the lower electrode;

d) covering the entire remaining surface from step c) including the sacrificial layer surrounding the lower electrode with a polymer and forming a polymer pattern with a line width of 50nm by an electron beam etching technique to expose the sacrificial layer and the substrate on which the lower electrode is formed;

e) forming an upper electrode by depositing metal on an entire upper surface from step d) and removing metal on the polymer pattern by a lift-off process so that an upper electrode is formed on the sacrificial layer surrounding the lower electrode and is on an exposed portion of the insulator;

f) removing the sacrificial layer so that a nanogap is formed between the upper electrode and the lower electrode; and

g) adsorbing conductive organic molecules between the upper electrode and the lower electrode,

wherein the nanogap is formed ~~so that~~with asymmetric vertical and horizontal distances ~~thereof~~between the upper and lower electrodes ~~are asymmetric so that~~and the horizontal distance is larger than the vertical distance and the conductive organic molecules are adsorbed while the substrate is immersed in a solution in which the conductive organic molecules are dissolved.

10. (Original) The method according to claim 9, wherein an electric field is applied between the lower electrode and the upper electrode on the substrate.

11. (Original) The method according to claim 9, wherein the solution is stirred or heated.

12. (Currently Amended) A method for manufacturing an organic molecular device comprising the steps of:

a) providing a substrate of a resistive insulating material having an insulating layer formed on an upper surface and forming a lower electrode on the insulating layer;

b) forming a predetermined size of a sacrificial layer pattern on an entire upper surface of the substrate including the lower electrode and the insulating layer;

c) using a photo etching technique to remove a portion of the sacrificial layer excluding a predetermined area covering the lower electrode so that the sacrificial layer surrounds the lower electrode;

d) covering the entire remaining surface from step c) including the sacrificial layer surrounding the lower electrode with a polymer and forming a polymer pattern with a line width of 50nm by an electron beam etching technique to expose the sacrificial layer and the insulating layer on which the lower electrode is formed;

e) forming an upper electrode by depositing metal on an entire upper surface from step d) and removing metal on the polymer pattern by a lift-off process so that an upper electrode is formed on the sacrificial layer surrounding the lower electrode and on an exposed portion of the

insulating layer;

f) removing the sacrificial layer so that a nanogap is formed between the upper electrode and the lower electrode; and

g) adsorbing conductive organic molecules between the upper electrode and the lower electrode,

wherein the nanogap is formed ~~so that~~with asymmetric vertical and horizontal distances ~~thereof~~between the upper and lower electrodes ~~are asymmetric so that~~and the horizontal distance is larger than the vertical distance and the conductive organic molecules are adsorbed, a current flowing through the lower electrode and the upper electrode is sensed so that whether and how much to adsorb is observed.

13. (Previously Presented) The method according to claim 12, further comprising a step of passivating an exterior with an insulating film after the step e).

14. (Cancelled)

15. (Previously Presented) The method according to claim 7, the sacrificial layer is formed of Ti, Pt or Au.

16. (Previously Presented) The method according to claim 9, the sacrificial layer is formed of Ti, Pt or Au.

17. (Previously Presented) The method according to claim 12, the sacrificial layer is formed of Ti, Pt or Au.